

JUN 11 / 2018



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

D117-840-011
Job Sheet 178675



003736

Part No: D117-840-011

Job Qty: 2 ea

Part Name: BK117/EC145 Bearpaws with Wearplates



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 6/6/18

Job Tracking No:

Due Date: 6/22/18

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: DWG REV C IPP REV:A NEW ISSUE 13-04-01 JLM VERIED BY:DD IPP REV:B 13.05.28 PER IIN D117-840
REV.A DD VERF:JLM IPP REV:C 15.03.30 PER REV B JLM VERIFIED BY:DD IPP REV:D 16.02.23 PER IIN
REVC DD VERF:JLM

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	2 Ea	6/22/18	6/22/18	0.00	0.00	Start Up Stores/Pkg-2		JUN 08 2018
160	Packaging	2 pcs	6/22/18	6/22/18	0.00	0.00	Packaging1-1		Jun 08/2018
170	QC	2 pcs	6/22/18	6/22/18	0.00	0.00	QC4		JRB JAS
180	Packaging	2 pcs	6/22/18	6/22/18	0.00	0.00	Packaging3-1		JRB 28
185	DC	2 pcs	6/22/18	6/22/18	0.00	0.00	DC		JRB 89
190	QC21-FG	2 Ea	6/22/18	6/22/18	0.00	0.00	QC21		DAS JUN 22 2018
Part Op 180 - Identify and pack for shipping as per PPP D117-840-011									21
Descriptions: 185 - Photocopy bluefile & type labels per PPP D117-840-011 CHG 003									9-80

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
AN4C11A	Bolt	24 Ea (12 ea)	90-Start up Operation	5071660
AN4C17A	Bolt	16 Ea (8 ea)	90-Start up Operation	506608x6 5083270
D2274	Radius Block	16 Ea (8 ea)	90-Start up Operation	5067935
D3456-1	Washer	16 Ea (8 ea)	90-Start up Operation	5057206
D4012-3	Cushion	8 Ea (4 ea)	90-Start up Operation	7153228x5 504654 2x3
D5377-1	Bearpaw	4 Ea (2 ea)	90-Start up Operation	5066152
D5378-041	Bearpaw Wearplate Assembly	4 Ea (2 ea)	90-Start up Operation	5083073
D5379-1	Bearpaw Clamp 5012743x4	8 Ea (4 ea)	90-Start up Operation	5062445x4
MS21043-4	Nut	40 Ea (20 ea)	90-Start up Operation	5056040
NAS1149D0463J	Washer	16 Ea (8 ea)	90-Start up Operation	5055952

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	AN4C11A	24	87	0
	AN4C17A	16	21	0
	D2274	16	275	0
	D3456-1	16	37	0
	D4012-3	8	105	0
	D5377-1	4	5	0
	D5378-041	4	8	0
	D5379-1	8	14	0
	MS21043-4	40	730	0

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval _____	
Description Work Order Deviation			Disposition		
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐			FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Poor ☐ Fol ☐ Gra ☐ We ☐ Wr ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐		
OTHER : _____			Deleted By _____ / Supervisor _____ Verification _____ Coordinator _____ Approval _____		

Container No: S083272
 Part: D117-840-011
 Job No: 178675
 Serial No/Batch: S083272
 Revision: _____
 Inspector: _____
 Exp Date: _____
 Instructions: _____



Date: 06/22/18

DART Aerospace Ltd.
 1270 Aberdeen Street
 Hawkesbury, ON K6A 1K7
 CANADA
 TEL: 1 813 632-5200
 Email: sales@dartaero.com
 www.dartaerospace.com

Deleted Wrong
 Dimensions
 Under tolerance
 Incorrect
 Part/Missing
 Part removed
 Drawing
 Finish
 Misread
 Turning Sequence

Part Specifications

Specifications could not be found.

Plex 6/6/18 7:18 AM Dart.lajeunesse.marie

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
Past Expiry Date ☐	Manufacturing Process ☐				
Misidentified ☐	Past Due ☐	OTHER : _____			



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Container View (Active) - Master Unit Containers

Master Unit No	Container No	Part No	Part Name	From Container	Current Location	Quantity
003736	S083148	AN4C11A	Bolt	S071660	ST344	24
003736	S060064	AN4C17A	Bolt		ST343	6
003736	S083271	AN4C17A	Bolt	s083270	ST343	10
003736	S083149	D2274	Radius Block	S067935	ST006	16
003736	S083151	D3456-1	Washer	S083151	ST	16
003736	F153228	D4012-3	Cushion		Start Up Container	5
003736	S079089	D4012-3	Cushion	S046542	ST545	3
003736	S083150	D5378-041	Bearpaw Wearplate Assembly	S083073	ST604	4
003736	S062445	D5379-1	Bearpaw Clamp	S062444	ST543	4
003736	S079232	D5379-1	Bearpaw Clamp	S072743	ST543	4
003736	S079079	MS21043-4	Nut	S056040	ST302	40
003736	S079078	NAS1149D0463J	Washer	S055952	ST263	24

Note: Ad hoc query view of Part.dbo.Container where Container.Active = 1.

Plex 6/22/18 10:00 AM dart.quirion.sonia

Change Record

PAGE 1 OF 1

Part Number: D117-840-011

Description: BEARPAW

[illegible]

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : ☐					

4.0 WEIGHT AND BALANCE

Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
D117-840-011	27.7 lb	0.0 in	0.0 lb-in	204.1 in	5653 in-lb
Bearpaw Installation	12.6 kg	0.0 mm	0.0 mm-kg	5200 mm	65,520 mm-kg

5.0 PARTS LIST

QTY -011	Part Number	Description
X	D117-840-011	BEARPAW INSTALLATION
8	D2274	RADIUS BLOCK
8	D3456-1	WASHER
4	D4012-3	CLAMP CUSHION (REPLACES D4012-1)
2	D5377-1	BEARPAW (REPLACES D4796-1)
2	D5378-041	BEARPAW WEARPLATE ASSY (REPLACES D4798-041)
4	D5379-1	BEARPAW CLAMP (REPLACES D4799-1)
12	AN4C11A	BOLT
8	AN4C17A	BOLT
20	MS21043-4	NUT
12	NAS1149D0463J	WASHER